

REMARKS

In the above-referenced Office action, formal drawings were required to replace the informal drawings filed with the above-identified patent application. In response, a set of formal drawings are attached to this Office action to satisfy this requirement. The informal drawings were acceptable for the instant examination.

Also, in the Office action, independent claim 1 and claims 2-3 dependent therefrom, and independent claim 11 and claims 12-13 and 16-20 dependent therefrom were all rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,073,880, Voigt et al. Dependent claims 4-10 and 14-15 were considered to contain allowable subject matter.

In response, independent claim 11 was amended. Support for this amendment is found in dependent claim 12. The remaining claims remain as originally filed. Applicants respectfully traverse the anticipation rejection and offer the following remarks in support of their position.

Voigt et al. is directed to aerofin stowage and deployment apparatus for a missile body in which pairs of aerofins are stowed and deployed through corresponding slots in the missile body. That is, each slot accommodates a pair of aerofins comprising a deflector and a canard (see Abstract). In the stowed state, the deflector 14 is folded into its corresponding slot 34 first followed by the canard 12. When the canard 12 moves longitudinally into the slot 34, it forces the deflector 14 to shift laterally away from slot opening (see Figures 3 and 4 and associated descriptive text in col. 3). Thus, in the folded state, the deflector 14 and canard 12 are aligned longitudinally in parallel within the missile body 10, but only the canard 12 is in alignment with its corresponding longitudinal slot 34 (see Figures 3 and 4). Each canard 12 and deflector 14 is coupled to a corresponding torsional spring 30 and 32, respectively. The canards 12 are retained in their stowed state by a common releasable latch mechanism 16.

When the latch mechanism 16 is released, the canards 12 are rotated through their respective longitudinal slots 34 by the torsional springs 30 into the deployed state. As the canards 12 move away from the deflectors 14, they permit springs 32 to force the deflectors 14 to move laterally into alignment with the slots 34, and, then, to rotate the deflectors 34 into their deployed state (see col. 4, and Figures 2, 3 and 4). Note, in Voigt et al., it is the torsional springs 30 and 32

that retain the canards 12 and deflectors 14 in their longitudinal positions within the missile body 10.

In contrast, rejected claim 1 of the instant application recites that each cavity within the housing has a section including an angled ledge and side wall support surface to accommodate stowage of the corresponding control surface in a span wise canted position with respect to the corresponding slotted opening. The examiner asserts that Voigt et al., in Figure 4, show fin 14a canted away from the slot 34a in the stowed position. Actually, Figure 4 of Voigt et al. shows fin 14a misaligned laterally with slot 34a, but longitudinally aligned with slot 34a and not canted. Applicants can find no teaching or suggestion in Voigt et al. of any canting of the aerofins 12 and 14. In fact, Applicants can find no teaching or suggestion in Voigt et al. of a cavity section including an angled ledge and side wall support surface to accommodate stowage of the corresponding control surface in a span wise canted position with respect to the corresponding slotted opening as recited in claim 1.

In addition, rejected dependent claim 3 recites that each control surface is capable of being stowed into the corresponding cavity section by canting the span of the control surface along the side wall support surface and resting a span edge of the control surface along the angled ledge. Since there is no teaching or suggestion of a cavity section including an angled ledge and side wall support surface to accommodate stowage of the corresponding control surface in Voigt et al., then, the recitation of claim 3 is also not taught or suggested by Voigt et al.

Further, in contrast with Voigt et al., amended independent claim 11 recites moving each folded control surface into a stowage section of the corresponding cavity by canting a span of each control surface along a side wall support surface of said corresponding stowage section and resting a span edge of each control surface along an angled ledge of the corresponding stowage section to edge wise mis-align each folded control surface from the corresponding slotted opening. As noted above, there is no teaching or suggestion in Voigt et al. of a stowage section including a side wall support surface and an angled ledge, nor is there any teaching or suggestion of the canting of a span of each control surface along a side wall support surface of said corresponding stowage section and resting a span edge of each control surface along an angled

ledge of the corresponding stowage section to edge wise mis-align each folded control surface from the corresponding slotted opening.

Still further, the steps of rotating recited in dependent claims 12 and 13 are also not taught or suggested by Voigt et al.; and neither is the step of rotating each folded control surface to and from the corresponding stowage section by the rotatable coupling recited in dependent claim 20.

Accordingly, for at least the reasons given above, claim 1, dependent claim 3, amended independent claim 11, dependent claims 12, 13 and 20 are all novel and patentably distinguishable over Voigt et al. In addition, dependent claim 2 from claim 1 and dependent claims 16-19 from claim 11 all include the limitations of their respective parent claim and, thus, are novel and patentably distinguishable over Voigt et al. for at least the same reasons given for their respective parent claim.

Applicants acknowledge that dependent claims 4-10 from claim 1 and dependent claims 14-15 from claim 11 are considered to contain allowable subject matter, but Applicants are taking no action at this time because all of the claims of the instant application are considered allowable.

In view of the above, the instant application is considered in condition for allowance, and therefore, an early issuance thereof is earnestly solicited.

Respectfully submitted,


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